

# 1,1,1,3,3,3-Hexafluoro-2-methoxypropane

## SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

|               |   |
|---------------|---|
| Chemical Name | 1,1,1,3,3,3-Hexafluoro-2-methoxypropane |
| CAS No.       | 13171-18-1                              |
| Trade Name    | SME, HFMOP                              |
| Product Code  | None                                    |

**Relevant identified uses of the substance or mixture and uses advised against**

|                        |  |
|------------------------|--|
| Identified Use(s)      | For R&D Only. Not yet listed on TSCA.  |
| Uses Advised Against   | Any use subject to U.S. EPA TSCA regulations.  |
| Company Identification | Halocarbon Products Corporation<br>1100 Dittman Court<br>North Augusta, SC 29841<br>(432) 661-3861 |

Telephone

E-Mail (competent person)

[sds@halocarbon.com](mailto:sds@halocarbon.com)

**Emergency telephone number**

|                     |   |
|---------------------|---|
| Emergency Phone No. | CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887<br>(Collect calls accepted) |
|---------------------|---|

### SECTION 2: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

|                             |           |
|-----------------------------|-----------|
| OSHA HCS (29 CFR 1910.1200) | STOT SE 3 |
|-----------------------------|-----------|

**Label elements**

Hazard Symbol



Signal Word(s)

**WARNING**

Hazard Statement(s)

May cause drowsiness or dizziness.

Precautionary Statement(s)

Avoid breathing mist/vapors/spray.  
Wear protective gloves/eye protection/face protection.  
Wash hands and exposed skin thoroughly after handling.  
IF SWALLOWED: Rinse mouth. Get medical attention.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.  
IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation (redness, rash, blistering) develops, get medical attention. Wash contaminated clothing before reuse.  
Keep out of reach of children.

**Other hazards**

None

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Ingredients                             | % wt. | CAS No.    |
|---|-------|------------|
| 1,1,1,3,3,3-Hexafluoro-2-methoxypropane | > 98  | 13171-18-1 |

### SECTION 4: FIRST AID MEASURES



#### Description of first aid measures

|              |  |
|--------------|--|
| Inhalation   | Not normally required. Move person to fresh air. If breathing is laboured, administer oxygen. If symptoms develop, obtain medical attention.   |
| Skin Contact | Take off immediately all contaminated clothing. Rinse skin with water/shower. If irritation (redness, rash, blistering) develops, get medical attention. Wash contaminated clothing before reuse |
| Eye Contact  | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.                   |
| Ingestion    | Rinse mouth. Get medical attention.  |

**Most important symptoms and effects, both acute and delayed** None known.

**Indication of any immediate medical attention and special treatment needed** None known.

### SECTION 5: FIRE-FIGHTING MEASURES

#### Extinguishing Media

|                                 |   |
|---------------------------------|---|
| -Suitable Extinguishing Media   | Non-flammable / Non-combustible. As appropriate for surrounding fire. |
| -Unsuitable Extinguishing Media | None known.   |

**Special hazards arising from the substance or mixture** None known.

**Advice for fire-fighters** A self contained breathing apparatus and suitable protective clothing should be worn in fire conditions.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

|  |   |
|--|---|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Wear protective gloves/eye protection. Avoid breathing mist/vapors/spray.   |
| <b>Environmental precautions</b>   | Avoid run off to waterways and sewers.  |
| <b>Methods and material for containment and cleaning up</b>                | Follow the Spill clean up guidelines as suggested in the Hazardous and non-hazardous waste regulations. Transfer to a container for disposal or recovery. |
| <b>Reference to other sections</b>   | None  |
| <b>Additional Information</b>  | None  |

## 1,1,1,3,3,3-Hexafluoro-2-methoxypropane

### SECTION 7: HANDLING AND STORAGE

**Precautions for safe handling**

Avoid contact with skin and eyes. Wear protective gloves/eye protection/face protection. Wash hands and exposed skin thoroughly after handling. Avoid breathing mist/vapors/spray.

**Conditions for safe storage, including any incompatibilities**

-Storage temperature

Store at room temperature. Keep only in original or other compatible container.

-Incompatible materials

Strong oxidising agents.

**Specific end use(s)**

For R&D Use Only. Not listed on TSCA.

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Occupational Exposure Limits**

| SUBSTANCE. | CAS No. | (8hr TWA)  |             | STEL       |             | Note: |
|------------|---------|------------|-------------|------------|-------------|-------|
|            |         | PEL (OSHA) | TLV (ACGIH) | PEL (OSHA) | TLV (ACGIH) |       |
| None *     | -----   | -----      | -----       | -----      | -----       | ----- |

\* Similar substances have exposure limits of 1,000 ppm as an 8-hour time-weighted average (TWA).

**Recommended monitoring method**

None. Portable flame-ionization detectors are suitable for area monitoring.

**Exposure controls**
**Appropriate engineering controls**

Not normally required.

**Personal protection equipment**

Eye/face protection

Wear protective eyewear (goggles, face shield, or safety glasses).



Skin protection (Hand protection/ Other)

Wear protective gloves. (Nitrile rubber, PVC, Natural rubber)



Respiratory protection

Not normally required. In poorly ventilated areas or confined spaces, use an airline respirator or self-contained breathing apparatus.


**Environmental Exposure Controls**

None known

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**Information on basic physical and chemical properties**

Appearance

Liquid

Color.

Clear Colourless

Odor

Not available

## 1,1,1,3,3,3-Hexafluoro-2-methoxypropane

|  |                                     |
|--|-------------------------------------|
| Odor Threshold (ppm)                     | Not available                       |
| pH (Value)                               | Not available                       |
| Melting Point (°C) / Freezing Point (°C) | Not available                       |
| Boiling point/boiling range (°C):        | 50 (122 °F)                         |
| Flash Point (°C)                         | > 93 (> 200 °F) - Did not flash.    |
| Evaporation Rate                         | Not available                       |
| Flammability (solid, gas)                | Not applicable                      |
| Explosive Limit Ranges                   | Not applicable                      |
| Vapour pressure (Pascal)                 | 36,100 @ 25 °C (270.8 mmHg @ 77 °F) |
| Vapour Density (Air=1)                   | Not applicable                      |
| Density (g/ml)                           | 1.38 (11.5 lb/gal)                  |
| Solubility (Water)                       | 0.0014 g/ml                         |
| Solubility (Other)                       | Not available                       |
| Partition Coefficient (n-Octanol/water)  | Not available                       |
| Auto Ignition Point (°C)                 | Not available                       |
| Decomposition Temperature (°C)           | Not available                       |
| Kinematic Viscosity (cSt)                | 0.36 @ 23 °C                        |
| Explosive properties                     | Not explosive.                      |
| Oxidizing properties                     | Not oxidizing.                      |
| <b>Other information</b>                 | Not available                       |

### SECTION 10: STABILITY AND REACTIVITY

|   |  |
|---|--|
| <b>Reactivity</b>                         | Stable under normal conditions.  |
| <b>Chemical stability</b>                 | Stable.  |
| <b>Possibility of hazardous reactions</b> | None anticipated.  |
| <b>Conditions to avoid</b>                | Incompatible materials   |
| <b>Incompatible materials</b>             | Strong oxidising agents, Alkalis and alkali metals, Aluminum, Zinc, Alkaline earth metals.       |
| <b>Hazardous decomposition product(s)</b> | Thermal decomposition products include: Carbon monoxide, Carbon dioxide, and hydrogen fluorides. |

### SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes:** Inhalation, Skin Contact, Eye Contact

|                               |  |
|-------------------------------|--|
| <b>Acute toxicity</b>         | Oral: LD50 >5000 mg/kg-bw<br>Dermal: LD50 >5000 mg/kg-bw<br>Inhalation: LC50 > 56 mg/L (4-hour) (rat) - May cause drowsiness or dizziness. |
| <b>Irritation/Corrosivity</b> | Slight irritant to rabbit eyes. Slight irritant to rabbit skin.  |
| <b>Sensitization</b>          | It is not a skin sensitiser in animal tests.   |
| <b>Repeated dose toxicity</b> | Not to be expected (By analogy with similar materials)   |
| <b>Carcinogenicity</b>        | No data.   |

| NTP | IARC | ACGIH | OSHA |
|-----|------|-------|------|
| No. | No.  | No.   | No.  |

|   |   |
|---|---|
| <b>Mutagenicity</b> (By analogy with similar materials) | Not to be expected (By analogy with similar materials)  |
| <b>Reproductive toxicity</b>                            | No data. Similar substances have produced reproductive and/or developmental effects in laboratory animals or have been implicated in higher than normal incidences of problem pregnancies among persons exposed to anesthetic gases of this type. |

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### SECTION 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

Short term  
Long Term

Not to be expected.  
Not to be expected.

**Persistence and degradability**

Not readily biodegradable.

**Bioaccumulative potential**

The substance has low potential for bioaccumulation.

**Mobility in soil**

Not available.

**Results of PBT and vPvB assessment**

Not classified as PBT or vPvB.

**Other adverse effects**

None known.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice.

### SECTION 14: TRANSPORT INFORMATION

|                              | Land transport<br>(U.S. DOT)               | Sea transport<br>(IMDG) | Air transport<br>(ICAO/IATA)  |
|------------------------------|--|-------------------------|---|
| UN number                    |  |                         | UN 3334   |
| Proper Shipping Name         | Not classified as dangerous for transport. |                         | Aviation regulated liquid, n.o.s.<br>(Sevoflurane Related Compound B) |
| Transport hazard class(es)   |  |                         | 9   |
| Packing group                |  |                         | III   |
| Environmental hazards        |  |                         | No.   |
| Special precautions for user |  |                         | Subject to quantity restrictions/limitations                          |

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

### SECTION 15: REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture:

TSCA (Toxic Substance Control Act) - Inventory Status: All components listed or polymer exempt.

Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):

| Chemical Name | CAS No. | Typical %wt. | RQ (Pounds) |
|---------------|---------|--------------|-------------|
| None          | ----    | ----         | ----        |

SARA 311/312 - Hazard Categories: See SECTION 2 - HAZARDS IDENTIFICATION

SARA 313 - Toxic Chemicals (40 CFR 372):

| Chemical Name | CAS No. | Typical %wt. |
|---------------|---------|--------------|
| None          | ----    | ----         |

SARA 302 - Extremely Hazardous Substances(40 CFR 355):

| Chemical Name | CAS No. | Typical %wt. | TPQ (pounds) |
|---------------|---------|--------------|--------------|
| None          | ----    | ----         | ----         |

## 1,1,1,3,3,3-Hexafluoro-2-methoxypropane

**California Proposition 65 List:**

| Chemical Name | CAS No. | Type of Toxicity |
|---------------|---------|------------------|
| None          | ----    | ----             |

### SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1 - 16.

**Date of preparation:** February 13, 2018

**Additional Information:** None

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